

## CLAIMS

- [1] A method for activating a surface of a metal member, which comprises heating a mixed gas of a carbon donor compound, which is gaseous at normal temperature and pressure, and ammonia as essential components to at least 300°C in a heating furnace to form HCN under catalytic action of said metal member, a metal-made inner wall of said furnace or a metal-made jig in the thus-heated mixed gas, and causing the thus-formed HCN to act on said surface of said metal member.
- [2] A method according to claim 1, wherein said carbon donor compound is at least one compound selected from acetylene, ethylene, propane, butane and carbon monoxide.
- [3] A method according to claim 1, wherein said metal-made inner wall of said heating furnace or said metal-made jig contains at least one metal selected from Fe, Ni, Co, Cu, Cr, Mo, Nb, V, Ti and Zr.
- [4] A method according to claim 1, wherein HCN is formed to at least 100 mg/m<sup>3</sup> in said heating furnace and a furnace atmosphere gas has a dew point not higher than 5°C.